Knowledge, Attitude and Behavior Concerning AIDS

for

The Pennsylvania Department of Health

by

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Institute of State and Regional Affairs
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U.Ed. HB91–09

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INTRODUCTION

By July 2, 1990, Pennsylvania had 3,927 reported AIDS cases and 2,369 AIDS fatalities. The number of actual AIDS cases exceeds the number of reported cases; by how much no one is sure. In addition, tens of thousands of Pennsylvanians are infected with HIV, the virus which causes AIDS. For many Pennsylvanians, Acquired Immune Deficiency Syndrome (AIDS) continues to be a serious threat.

The great majority of Pennsylvanians rate AIDS as a serious or very serious disease — even compared to other diseases like cancer and heart disease. But a disturbingly large number rate their own chances of getting the disease as very low. While knowledge about AIDS as a disease is very high, there remains much misinformation and confusion about how AIDS is transmitted and how transmission can be prevented. Personal contact with or knowledge of someone with AIDS is still an unusual experience for most Pennsylvanians — 80% report not knowing anyone with AIDS.

In the absence of a vaccine or a cure, education and persuasion remain our most effective weapons. The research reported here focused on the questions *"Who knows what about AIDS?"*, *"How do people feel about AIDS and those who have AIDS?"*, and *"How do Pennsylvanians now behave, given what they know and think about AIDS?"*

The research is based on a random telephone survey conducted in December 1989.

Where possible, comparisons are made with a similar survey conducted by the same research team in 1988.

TABLE 1 — *Source of most information on AIDS*

	Source	% of Sample	Change from 1988
1.	Television	41	0
2.	Newspapers	20	+2
3.	Magazines	14	+2
4.	Pamphlets	4	-6
5.	Hospitals	3	+2
6.	Journals	3	0
7.	School	2	0
8.	Radio	2	0

Others less than 2 percent

TABLE 2 — *Trust in sources of information on AIDS*

	Most Trusted	By		Least Trusted	By
1.	PA Dept of Health	79%	1.	Family or Friend	26%
2.	Surgeon General	74%	2.	Family Planning	9%
3.	Family Doctor	66%	3.	Local AIDS Group	7%
4.	Local AIDS Group	54%	4.	Red Cross	5%
5.	Red Cross	51%	5.	Family Doctor	4%
6.	Family Planning	47%	6.	Surgeon General	4%
7.	Family or Friend	16%	7.	PA Dept of Health	2%

FINDING OUT ABOUT AIDS

Sources of Information

Information sources about AIDS show impressive stability among Pennsylvanians *(Table 1).* As in 1988, television is still the most important source. About two of every five (41%) list it as their first source. Second is newspapers with one in five Pennsylvanians (20%) listing them. Magazines are third with one in seven (14%) using them most as a source of information about AIDS.

Other sources of information like pamphlets and journals register minuscule importance as they did in 1988.

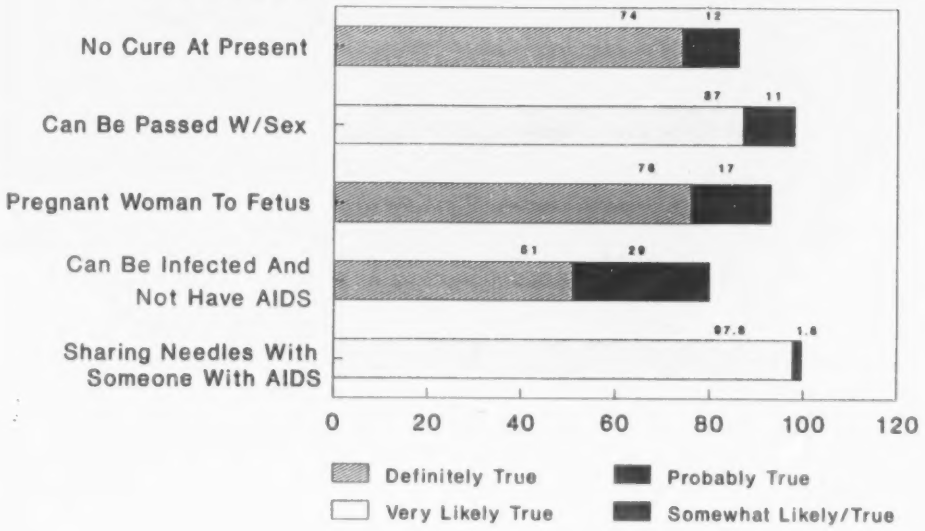
Sources of information for blacks are similar to those for whites. Blacks are using television somewhat less than they did in 1988 and are using newspapers somewhat more. These differences, however, are small.

Trust in Sources

Respondents also expressed different levels of trust toward possible sources of information on AIDS. *Table 2* shows the percent of people expressing "a lot of trust" and "no trust" in various sources of information.

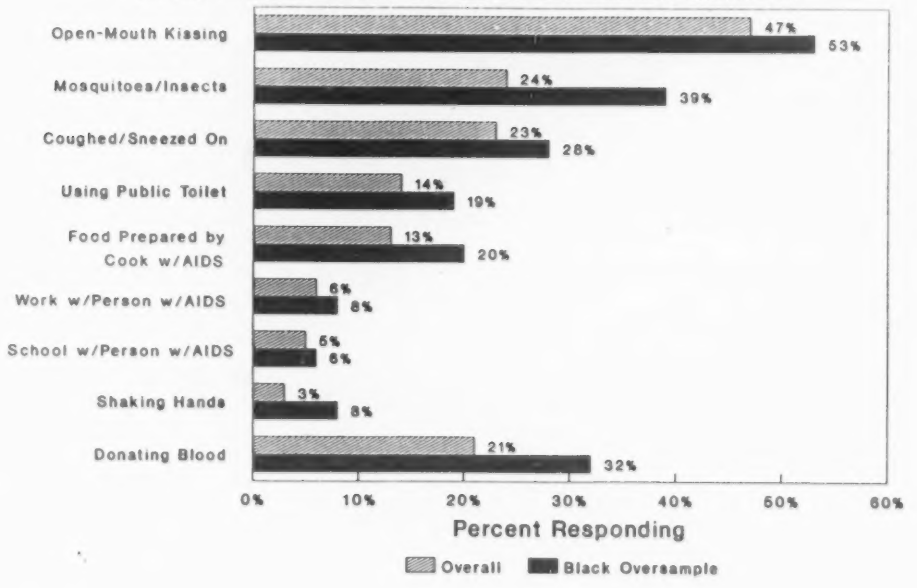
Since 1988 relative trust levels have been consistent. The Pennsylvania Department of Health is still the most trusted (79%) followed by the US Surgeon General (74%) and the family doctor (66%). A friend or family member is the least trusted (16%) as in 1988.

Figure 1 Percent Of Pennsylvania Adults Who Think Selected Statements About AIDS Are Definitely True Or Probably True



PSDC Statistical Graphics

Figure 2 Percent of Pennsylvania Adults Who Believe It Is Very Likely Or Somewhat Likely To Get AIDS Or The AIDS Virus From Casual Contact Or Other Contact



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KNOWLEDGE OF AIDS

Basic Facts

Knowledge about the primary means of transmitting AIDS remains almost universal. In the 1989 Survey, 99% thought that it is very likely or somewhat likely that a person will get AIDS from sharing needles for drug use with someone who has AIDS, and 98% thought the same about having sex with a person who has AIDS. These percentages held for blacks and whites, males and females.

Figure 1 shows the percent of Pennsylvania adults who think selected statements about AIDS are definitely true or probably true. 98%, up from 94% a year ago, believe that a person is very likely or somewhat likely to get AIDS by having sex with a person who has AIDS. All other percentages show little (2% or less) or no change from the 1988 survey.

Transmission and Casual Contact

There remains misinformation about the non-transmission of AIDS through casual or non-contact. Various proportions *(Figure 2)* of Pennsylvanians believe it is likely that a person will get AIDS or the AIDS virus from such contact. In all cases, these figures are within 2% of the figures reported in 1988, and a greater proportion of blacks than of the general population report such beliefs.

Two of every three believe that a person receiving a blood transfusion is likely to get AIDS, and 21% believe that a blood donor is likely to get it. Donating blood continues to be an area of misinformation concerning contracting AIDS.

Prevention

There also remains some misinformation about preventing AIDS *(Table 3).*

A considerable majority, 93%, believe that a condom is very or somewhat effective in preventing getting the AIDS virus, up from 90% in 1988. 64% believe that using a diaphragm is not at all effective in prevention, up from 55% in 1988. Higher proportions of the population believe that other methods of birth control are ineffective in preventing AIDS; while each of these percentages represents a substantial majority, this leaves a considerable proportion who either believe that these ineffective means do offer protection or who don't know.

Table 3 — Percent of Pennsylvania adults responding positively to questions about preventing AIDS.

	True	Don't Know
There is a vaccine available to the public that protects a a person from getting the AIDS virus.	5%	12%
Using a diaphragm is effective.	19%	17%
Douching or washing after sex is effective.	14%	10%
The birth control pill is effective.	5%	7%
An IUD is effective.	7%	14%
Using a condom is effective.	93%	3%

Figure 3 Knowledge Of AIDS By Level Of Education

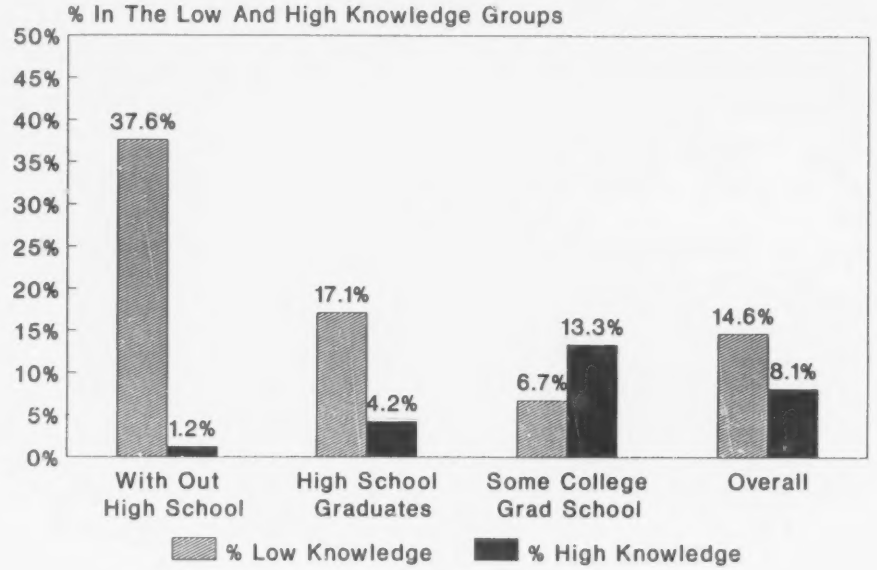
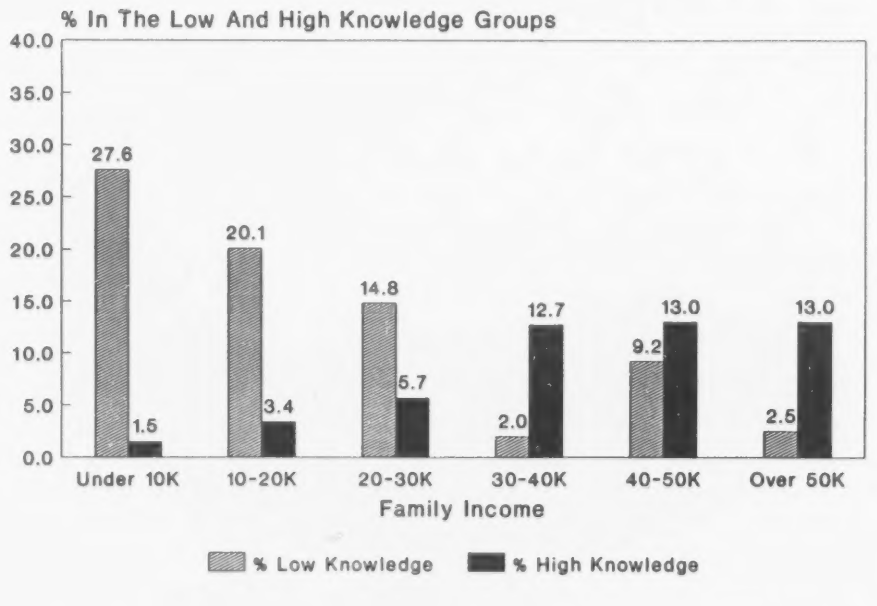


Figure 4 Knowledge Of AIDS By Total Family Income



A Knowledge of AIDS Scale

An AIDS knowledge scale based on 21 questions from the Pennsylvania Survey measures the general knowledge of AIDS. The 21 questions yielded the following statistics:

* Median — 17
Mode — 19
Mean — 16.35
Standard deviation — 2.86

Those between 14 and 19, inclusive, (within one standard deviation of the mean) form the "middle" knowledge group, those below 14 the "low knowledge" group, and those above 19 the "high knowledge" group. The distribution of scores is not symmetric, but 15% of the respondents scored below 14 and 9% scored higher than 19.

There was no difference between males and females or between blacks and whites in overall knowledge of AIDS.

Knowledge of AIDS is related to level of education *(Figure 3)*. Among those adults without a high school education, 38% were in the low knowledge group and only 1% in the high knowledge group. At the other end of the education scale, among those with at least some college only 7% were in the low knowledge group while 13% were in the high knowledge group. This finding may suggest that those who have the greatest need for general education also have the greatest need for targeted or message education.

Membership in the high knowledge group increases as total family income increases *(Figure 4)*, and membership in the low knowledge group decreases as income increases. Based on what we know about education and income, this result is consistent with previous results.

The relation between age and knowledge of AIDS is not a linear one *(Figure 5)*. Membership in the high knowledge group declines markedly only for the older, middle aged, and seniors. Similarly, percentage in the low knowledge group rises markedly only for the same older, middle aged, and seniors.

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*DEFINITIONS

Mean
The mean (sometimes called the arithmetic mean or average) is defined as the sum of a set of observations divided by the number of observations in the set.

Median
The median (or the mid-point) is the measured value that neither exceeds nor is exceeded by more than half of the observations in an ordered set.

Mode
The mode is the measured value that occurs most frequently in the set of observations.

Standard Deviation
The standard deviation of a set of observations is defined as the positive square root of the variance. The variance involves the computation of the difference between each measured value and the mean for the set of observations. The difference between each measured value and the mean is called a deviation about the mean.

Adapted from:

Anderson, David R., Dennis J. Sweeney, and Thomas A. Williams. *Statistics Concepts and Applications.* St. Paul: West Publishing Company, 1986.

Anderson, Theodore R., and Morris Zelditch, Jr. *A Basic Course in Statistics with Sociological Applications.* New York: Holt, Rinehart and Winston, Inc., 1968.

Figure 5 Knowledge Of AIDS By Age Group

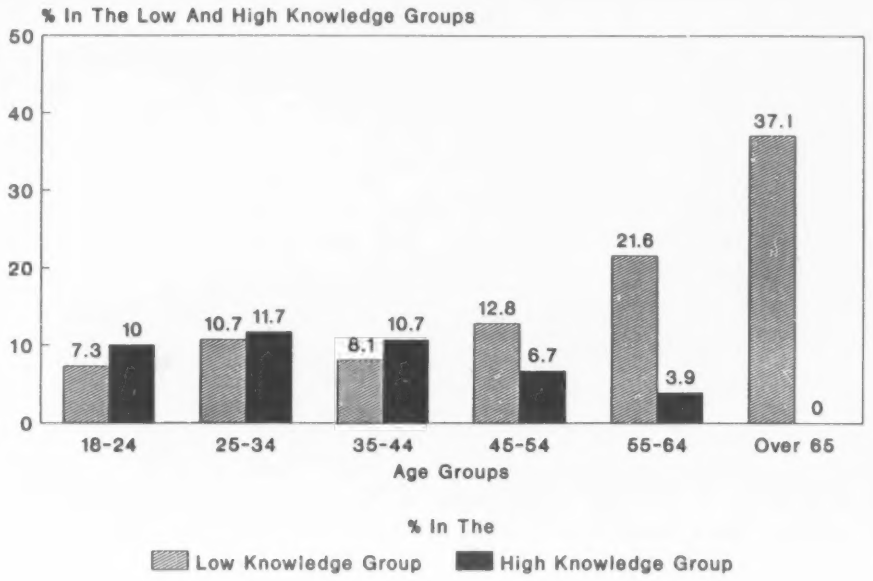
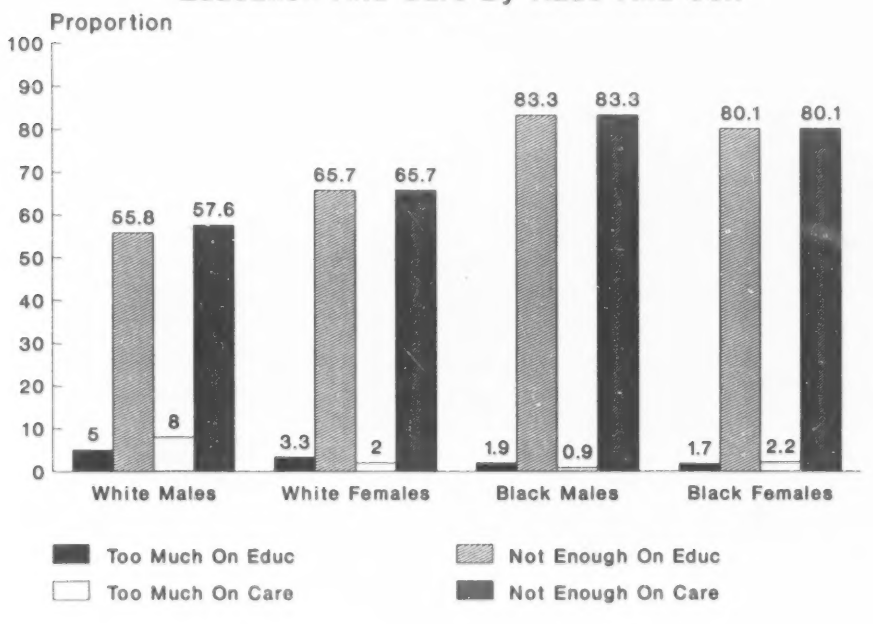


Figure 6 Perceived Adequacy Of Spending For AIDS Education And Care By Race And Sex



ATTITUDES TOWARD AIDS

Public Funding For AIDS

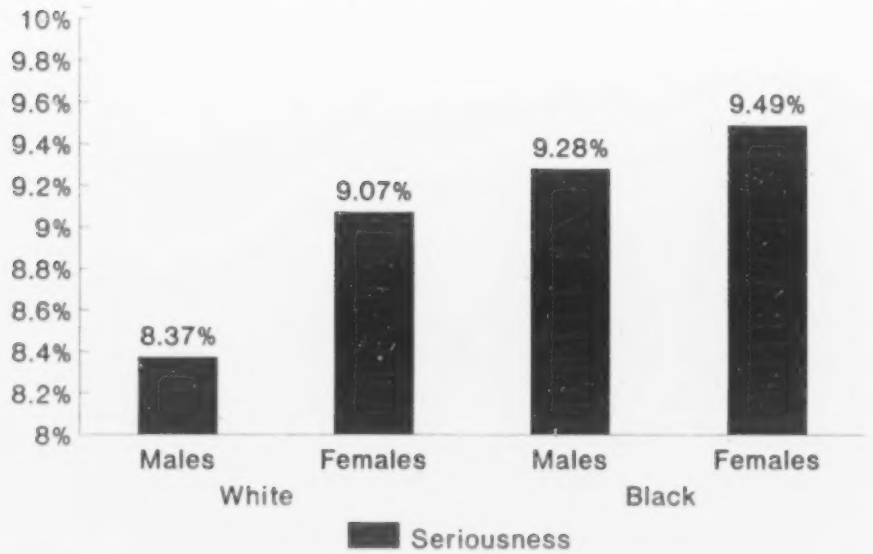
Pennsylvanians' attitudes vary on whether too much money, not enough money, or just the right amount of money is being spent on educating the public about AIDS and on caring for AIDS victims. 63% of Pennsylvania adults believe not enough is being spent on educating the public; the same proportion believe that not enough is being spent on caring for people with AIDS.

Among those 65 and over fewer than half (46.7%) believe that not enough is being spent, while among those under 25 years old, 72% believe that not enough is being spent. Concerning caring for people with AIDS, among those 65 and over half (50.4%) believe not enough is being spent while among those under 25 more than two thirds (67.8%) believe not enough is being spent.

Blacks are more likely than whites to believe that not enough is being spent for either purpose. Females are more likely than males to believe this.

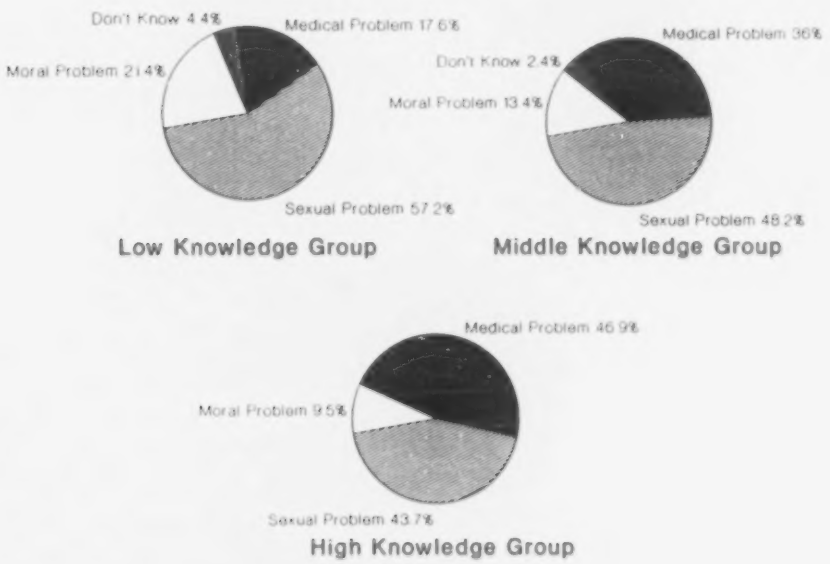
Proportionately more white males than any of the other three race-sex groups believe that too much is being spent both on educating the public about AIDS and on caring for people with AIDS, and fewer white males believe that not enough is being spent on either service *(Figure 6)*. Black males have the smallest proportion believing that too much is being spent on providing these services and the largest proportion believing that not enough is being spent.

Figure 7 Perceived Seriousness of AIDS by Race and Sex



PSDC Statistical Graphics

Figure 8 Knowledge Of AIDS And View Of AIDS As A Sexual, Medical Or Moral Problem



PSDC Statistical Graphics

How Serious is AIDS?

The difference in perceived adequacy of spending for AIDS education and care is for the most part consistent with perceived seriousness of AIDS. Blacks perceive AIDS to be somewhat more serious than do whites, and females consider it to be more serious than do males *(Figure 7)*. We note, however, that the sex difference is greater among whites than among blacks.

The white males' perceived seriousness of AIDS, 8.37 on the unreferenced scale, is lower than the perceived seriousness reported by any other identifiable group, including those who state that they engage in occasional or frequent intravenous drug use, casual sex, or homosexuality, or the groups that state they do not engage in such practices. Black females' perceived seriousness, 9.49, is higher than any other group's.

Attitudes and Knowledge

How one views AIDS is related to knowledge of AIDS. *Figure 8* shows that the low knowledge group is most likely (57.2%) to view AIDS as a sexual problem and least likely (17.6%) to view it as a medical problem. The middle knowledge group is also most likely (48.2%) to view AIDS as a sexual problem but is least likely (13.4%) to view it as a moral problem. The high knowledge group is most likely (46.9%) to view AIDS as a medical problem and least likely (9.5%) to view it as a moral problem.

The data analysis does not — and could not — show whether one's attitude toward AIDS influences one's seeking greater knowledge, or one's level of knowledge influences one's viewpoint.

TABLE 4 — *Testing for AIDS*

(a) Had Blood Tested Within Last Year?

	Whites	Blacks
Yes	22%	35%
No	73%	63%
Don't know	5%	1%

(b) Plan to Have Blood Tested This Year?

	Whites	Blacks
Yes	22%	47%
No	68%	43%
Don't know	9%	9%

(c) Testing Differences Between Men and Women. Been Tested or Plan to be Tested?

	Males	Females
Yes	28%	17%
No	72%	83%

TABLE 5 — *Where would you have an AIDS test done?*

	Popularity	% of Pennsylvanians
1. My Doctor	1	45
2. Hospital	2	36
3. Don't Know	3	10
4. AIDS Clinic	4	3
5. Red Cross	4	3
6. Other Clinic	4	3

Others less than 1%

TABLE 6 — *People knowing anyone with AIDS*

	Whites	Blacks
Do Know Someone	17%	31%
Don't Know Someone	81%	69%

EXPERIENCE WITH AIDS

Experience With AIDS Testing

Pennsylvanians' experience with AIDS testing impacts daily lives in several ways. Moreover compared to 1988 these impacts appear to be increasing *(Table 4)*.

For example, more than one in five Pennsylvanians (22%) have been tested for AIDS within the past year — up from only 14% in 1988 — and about one in five (22%) plan to be tested in the next 12 months.

Testing itself is much more of a concern for blacks. About 1 in 3 blacks (35%) were tested in the last year; even more striking, almost half of black Pennsylvanians (47%) plan to be tested in the next 12 months.

Men and women also vary for AIDS testing. Women are far less likely to have been tested or plan testing (17%) than men (28%).

Where to Test

Table 5 describes the facilities Pennsylvanians would use if they were to be tested. A large number of test sites are possible but an overwhelming proportion of people (81%) choose either hospitals or "my doctor" with only scattered votes for sites like AIDS clinics or Red Cross. About one in 10 (10%) Pennsylvanians don't know where they would have the test performed.

Personally Know Someone With AIDS

One measure of the impact of the disease is the number of people who personally know someone with it. As *Table 6* reveals less than one in five (17%) Pennsylvanians know a person with AIDS. Personal knowledge of someone with AIDS is still an unusual experience since about 4 of 5 people report they don't know anybody with AIDS.

But this relatively low number masks two important facts: (1) black Pennsylvanians are now twice as likely as whites to know someone. About one in three blacks (31%) do, while less than one in 5 (17%) whites do. (2) Since 1988 there has been a marked increase in the overall number of people knowing a person with AIDS, from one in ten in 1988 to almost 2 in 10 (17%) now.

TABLE 7 — *Casual Sex*

	Yes	No
Currently have casual sex	7%	93%
Had casual sex in past	23%	77%
Have some history of casual sex	30%	70%

TABLE 8 — *Condom Use*

	Among Adults	Among Age 18-24	Among Singles	Among Blacks
Use sometimes	25%	48%	53%	40%
Don't use	75%	52%	47%	60%

TABLE 9 — *Homosexual Experience*

Current Sex With Other Men	
Frequently	1%
Sometimes	1%
Never	98%
Current or Past Sex With Other Men	
Current sex	2%
Past sex	2%
Never	96%

AIDS AND BEHAVIOR

Pennsylvanians report various levels of risky behavior associated with contracting AIDS.

Current or Past IV Drug Use

About 2% of the sample report some experience with IV drug use. There are no apparent demographic patterns here, nor are the numbers large enough to support any statistical generalizations based on them.

Casual Sex

About 7% of the sample report they sometimes have casual sex *(Table 7)*. These tend to be under age 35 (66%) and overwhelmingly single (70%). Another 25% said they had casual sex in the past. These tend to be age 25–44 (62%) and married (51%). Overall about one in three people (30%) report some history of casual sex. These people are predominately males (75%).

Condom Use

About one in four (25%) report some condom use, while 3 in 4 (75%) say they never use condoms *(Table 8)*. Use peaks at age 18–24 where it is about one in two (48%), then falls off gradually to about one in seven (13%) for age 45–54. Condom use is highest with singles (53%) and lowest with marrieds (15%), and it is much higher among blacks (40%) than whites (23%). Catholics are highest users (27%) compared to Protestants (20%).

Homosexual Experience

About 2% of the male sample report current sex with other men and another 2% report some past homosexual experience *(Table 9)*. Overall about 4% of men report either current or past homosexual experience. Men reporting current homosexual sex appear to be mostly younger, single, white and white collar. Those men reporting past homosexual experience appear to cluster around ages 25–44. Most are white (91%) and about half are single (49%). These impressions are tentative since the overall numbers reporting homosexual experience are not large enough to support any statistical generalization.

TABLE 10 —*Currently use drugs like marijuana or cocaine*

	Whites	Blacks
Frequently	1%	1%
Sometimes	6%	11%
Refused	1%	—
Never	92%	87%

TABLE 11 — *Only used drugs like marijuana and cocaine in the past*

	Whites	Blacks
Yes	25%	30%
No	75%	70%

TABLE 12 — *Alcohol use*

	Whites	Blacks
Frequently use	15%	13%
Sometimes use	57%	55%
Never use	28%	32%

TABLE 13 — *Assessing personal risk*

Risk Group	Rates Their Personal Risk	Rates Risk Of Others
IV Drug Users	Very Low*	Very High
Homosexuals	Very Low*	Very High
Casual Sex	Very Low*	High

* *Modal Responses*

Use of Drugs Like Marijuana or Cocaine

About 1 in 14 Pennsylvanians (7%) currently use drugs like marijuana or cocaine *(Table 10).* Among blacks about 1 in 8 do. Most current users are under age 35, and single. Blue collar workers show about twice the use rate of white collar workers.

Another 1 in 4 Pennsylvanians (25%) used drugs in the past, but don't now — and about 3 in blacks (30%) used drugs in the past but don't now *(Table 11).* Most (75%) former users are a 25 to 44. About half (54%) are married and most (89%) are white.

Alcohol Use

About one of every seven Pennsylvanians say they are heavy drinkers (15%), and about four in seven (57%) report drinking sometimes. So overall about 5 of every 7 use alcohol (72%) *(Table 12).*

The general pattern among Pennsylvanians is for heavy drinking to peak before age 25, flatter out gradually 25-65, then drop sharply after 65. More than 4 of 10 frequent drinkers (42%) are college graduates. Blacks (13%) and whites (15%) report similar rates of heavy drinking. Protestants are most likely to be teetotalers (36%) over Catholic teetotalers (18%) and Jewish (22%) teetotalers.

Assessing Personal Risk of AIDS

Pennsylvanians believe behavior like IV drug use, casual sex and homosexual sex runs a high risk of AIDS (for example, 97% say IV drug users run a "very high" or "high" chance of contract ing the disease, while 72% believe casual sex brings a similar risk).

But Pennsylvanians who also report risky behavior themselves tend to exempt themselves fror any dire consequences. *Table 13* shows this tendency for IV drug users, homosexuals, and people who engage in casual sex. Apparently people involved in high risk behavior understand the risks generally, but don't believe those risks apply to them specifically.

NOTE: The above mentioned drug usage categories do not necessarily correspond to the categories used by the National Institute of Drug Abuse.

This is one of a series of timely reports on policy-related issues. Other reports in this series include:

1.) Current Demographic Trends and State Policy: An Overview (March 1987)

2.) The Changing Employment Patterns of Men and Women in Pennsylvania (August 1987)

3.) The Payoffs of Education for Pennsylvania Workers: How to Sustain Economic Development (June 1988)

4.) Male-Female Earnings Gap in Pennsylvania (August 1988)

5.) Pennsylvania's Children in Poverty (September 1988)

6.) Poverty and Income Among Pennsylvania's Older Persons (November 1988)

7.) Pennsylvania Migration in the 1980's (January 1989)

8.) Knowledge of and Attitude Towards AIDS Among Pennsylvanians (May 1989)

9.) Pennsylvania's Changing Nonmetropolitan Population (July 1989)

10.) Underemployment of Pennsylvania Workers (January 1990)